

Carbon Monoxide

What is carbon monoxide?

Carbon monoxide (CO) is a colorless and odorless gas. It's formed during incomplete burning of fuels, such as gasoline, kerosene, natural gas, oil, coal, or wood.

How can I be exposed to carbon monoxide?

People can be exposed to dangerous levels of CO when charcoal, gas, oil, or wood are burned in poorly ventilated areas. Breathing automobile exhaust in a closed area can also result in CO poisoning.

Gas-fueled furnaces and water heaters can produce dangerous CO levels if they are malfunctioning. Common situations for CO poisoning include: using gasoline powered generators indoors, idling automobiles in enclosed garages, using propane heaters indoors, and allowing children to ride inside enclosed truck beds. Smoke from tobacco products and wood fires also contain carbon monoxide.

About 50% of all CO poisonings occur in the home. Other common settings include cars, cabins and tents. About 40% of CO poisonings occur in cars and 10% at worksites. Work exposure is more likely where fuel-powered engines are used in enclosed areas.

What are the effects of exposure to carbon monoxide?

Exposure to low levels of this odorless gas can produce a throbbing headache, dizziness, fatigue, mental confusion, and shortness of breath. Higher exposures result in severe headache, weakness, dizziness, nausea, irregular heartbeat, and unconsciousness.

Occasionally, these symptoms can be mistaken for symptoms of the flu. Exposure to very high levels of carbon monoxide can cause seizures, coma, respiratory failure, and death. In addition to the toxic effects of CO, this gas is very flammable and high concentrations may be explosive.

How can I avoid carbon monoxide exposure?

- Have your furnace, gas stove, and fireplace checked annually by a qualified professional to make sure they work properly and have adequate ventilation.
- All homes should be equipped with carbon monoxide detectors. The detectors are available at most hardware and building supply stores. These detectors function like smoke detectors and can alert you to the presence of high CO levels. Carbon monoxide detectors are not perfect, and are not a substitute for proper maintenance of appliances. Prevention is the key to avoiding CO poisoning.
- Make sure your automobile's exhaust system works properly.
- Never ride inside a camper or trailer that is being towed by another vehicle.
- Never allow an engine to run in an enclosed space, such as a garage. This includes cars, snowmobiles, motorcycles, space heaters and gasoline powered mowers, trimmers, chain saws or generators.
- Never use a gas oven to heat your home.
- Never use a charcoal grill indoor in an enclosed area.

What should I do if I suspect a problem?

If your CO detector alarms or if experience any of the above symptoms stated earlier, get fresh air immediately. Call your local fire department and move everyone outdoors into fresh air. Do not re-enter the building until it has been inspected and declared safe.

If you are experience headaches, nausea, drowsiness, or difficulty breathing, call 911. Do not drive while you are experiencing these symptoms.

For more information

- Contact the Wisconsin Division of Public Health, Bureau of Environmental Health, PO Box 2659, Madison, WI 53701-2659, (608) 266-1120; or
- Visit the department's website, www.dhfs.state.wi.us/eh



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